

80



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,897	01/16/2002	Shi Baw Ch'ng	12144-010001	9091
26161	7590	07/27/2005	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			ALAM, UZMA	
			ART UNIT	PAPER NUMBER
			2157	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/052,897

Applicant(s)

CH'NG, SHI BAW

Examiner

Uzma Alam

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This action is responsive to the application filed on January 16, 2002. Claims 1-12 are pending. Claims 1-12 represent a system for managing network faults.

#### ***Specification***

1. The disclosure is objected to because of the following informalities:

On page 4 of the specification, the heading "Description of the Implementations" should be replaced with the heading: BRIEF DESCRIPTION OF THE DRAWINGS.

After the listing of the Figures, the disclosure should start with the heading:

DETAILED DESCRIPTION OF THE INVENTION

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. As per claim 1, in the limitation "sending traps to a network management station with respect to fewer than all of the faults that are occurring, based on the results of the information processing," the part stating "with respect to fewer than all of the faults" is unclear.

5. As per claim 5, it is unclear whether faults are being sent or not being sent and under what conditions a fault is sent or not.

Art Unit: 2157

6. As per claim 7, it is unclear when the traps contain information about at least some of the faults occurring in the entities and when the traps don't contain this information.

7. As per claim 10, the limitation "network entities that are subject to faults, the faults of at least some of the network entities having causal relationships to the faults of at least some of the network entities" is unclear. This limitation is very broad and does not clearly describe how the network entities and their faults are related and what the sent traps are based upon.

### *Claim Rejections - 35 USC § 102*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claim Claims 1-3, 7, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Rangaraian et al. US Patent No. 5,828,830. Rangaraian teaches the invention as claimed including a method and system for prioritizing and filtering traps from network devices (see abstract).

10. As per claim 1, Rangaraian teaches a method comprising  
processing information about network faults that contribute to a failure of a network element in which the faults are occurring (a system is monitored and faults on the system are noted by an agent; column 2, lines 6-29; column 3, lines 58-67; column 4, lines 1-4), and

sending traps to a network management station with respect to fewer than all of the faults that are occurring, based on the results of the information processing (the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4, lines 20-67; column 5, lines 1-13).

11. As per claim 2, Rangaraian teaches the method of claim 1 in which the information is processed using a directed acyclic graph (column 4, lines 5-19; column 6, lines 14-33).

12. As per claim 3, Rangaraian teaches the method of claim 2 in which nodes of the graph represent entities of the network element (column 3, lines 9-29).

13. As per claim 7, Rangaraian teaches a method comprising  
at a network management station, receiving traps sent from network elements, the traps including information about at least some faults occurring in entities of the network elements, the traps not including information about at least some faults occurring in the entities. reporting the traps to an operator of the network management station (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

As per claim 8, Rangaraian teaches the method of claim 7 also including reporting the traps to an operator of the network management station (the agent sends traps to the network

Art Unit: 2157

manager; column 2, lines 6-29; column 3, lines 57-67; column 4, lines 1-5; column 4, lines 20-67; column 5, lines 1-13).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 4-6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangaraian et al. US Patent No. 5,828,830 in view of Rariden et al. US Patent No. 6,292,472. Rarident teaches the invention as claimed including checking faults in a network (see abstract).

As per claim 4, Rangaraian teaches the method of claim 1. Rangaraian does not teach in which the result of the processing comprises information about the causal relationships among at least some of the faults. Rariden teaches result of the processing comprises information about the causal relationships among at least some of the faults (column 3, line 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lins 58-67; column 4, lines 1-4).

16. As per claim 5, Rangaraian teaches the method of claim 1 in which traps are sent with respect to faults that have a relationship to other faults and traps are not sent with respect to at least some of the other faults (traps have different priority levels and some are even discarded; column 6, lines 46-67; column 7, lines 18-35). Rangaraian does not teach faults having causal relationships. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

17. As per claim 6, Rangaraian teaches the method of claim 1. Rangaraian does not teach also including requesting fault information from an entity that is part of the network element and which has not triggered a fault notice to determine if there is a fault associated with the network element. Rariden teaches including requesting fault information from an entity that is part of the network element and which has not triggered a fault notice to determine if there is a fault associated with the network element (network elements are polled when no traps are received; column 3, lines 52-67; column 3, lines 35-49).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine polling faults of Ridden with determining faults of Rangaraian. A person

Art Unit: 2157

of ordinary skill in the art would have been motivated to do this to not overlook any faults that may be occurring in the system.

18. As per claim 9, Rangaraian teaches the method of claim 7 in which the traps the information included in the traps represents faults that have a relationship to other faults (traps have different priority levels and some are even discarded; column 6, lines 46-67; column 7, lines 18-35). Rangaraian does not teach faults having causal relationships. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

19. As per claim 10, Rangaraian teaches Apparatus comprising  
a network element having

network entities that are subject to faults, the faults of at least some of the network entities having relationships to the faults of at least some of the network entities (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).  
a medium bearing information capable of configuring a machine in the network element to send



Art Unit: 2157

traps (the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13).

Rangaraian does not teach based on the causal relationships to a network management station. Rariden teaches that faults have a causal relationship (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

20. As per claim 11, Rangaraian teaches a medium bearing information capable of configuring a machine to determine faults occurring in entities of a network element (a system is monitored and faults on the system are noted by an agent and the agent sends traps to the network manager; column 2, lines 6-29; column 3, lines 58-67; column 4; column 5, lines 1-13). Rangaraian does not teach determining causal relationships to a network management station. Rariden teaches determining the causal relationship between (column 3, lines 9-35).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine determining faults of Rangaraian with determining the causal relationship of faults of Ridden. A person of ordinary skill in the art would have been motivated to do this to determine the priority of the faults so that the most important faults are handled in a more urgent manner (Rangaraian column 3, lines 58-67; column 4, lines 1-4).

Art Unit: 2157

21. As per claim 12, Rangaraian teaches the medium of claim 11 in which the information comprises a directed acyclic graph of nodes (column 4, lines 5-19; column 6, lines 14-33).

*Conclusion*

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

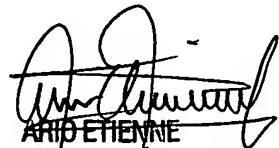
Bouvier et al. US Patent No. 5,961,594.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Uzma Alam whose telephone number is (571) 272-3995. The examiner can normally be reached on Monday-Tuesday 9 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Uzma alam  
Ua

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100